

**Amendments to the Specification:**

Please replace the paragraph beginning on page 1, line 7 with the following rewritten paragraph:

Reference is made to commonly assigned U.S. Patent Application Serial No. 10/823,453, [ ] filed on April 13, 2004, [herewith] entitled: ARTICLE FOR INHIBITING MICROBIAL GROWTH<sub>s</sub> by Joseph F. Bringley, David L. Patton, Richard W. Wien, Yannick J. F. Lerat; (~~docket No. 87834~~), U.S. Patent Application Serial No. 10/823,446, [ ] filed on April 13, 2004, [herewith] entitled: CONTAINER FOR INHIBITING MICROBIAL GROWTH IN LIQUID NUTRIENTS<sub>s</sub> by David L. Patton, Joseph F. Bringley, Richard W. Wien, John M. Pochan, Yannick J. F. Lerat; (~~docket 87472~~); U.S. Patent Application Serial No. 10/823,443, [ ] filed on April 13, 2004, [herewith] entitled: USE OF DERIVATIZED NANOPARTICLES TO MINIMIZE GROWTH OF MICRO-ORGANISMS IN HOT FILLED DRINKS<sub>s</sub> by Richard W. Wien, David L. Patton, Joseph F. Bringley, Yannick J. F. Lerat; (~~docket 87471~~); U.S. Patent Application Serial No. 10/822,940, [ ] filed on April 13, 2004, [herewith] entitled: DERIVATIZED NANOPARTICLES COMPRISING METAL-ION SEQUESTRANT<sub>s</sub> by Joseph F. Bringley; (~~docket 87428~~); and U.S. Patent Application Serial No. 10/822,929, [ ] filed on April 13, 2004, [herewith] entitled: COMPOSITION OF MATTER COMPRISING POLYMER AND DERIVATIZED NANOPARTICLES<sub>s</sub> by Joseph F. Bringley, Richard W. Wien, Richard L. Parton; (~~docket 87708~~); U.S. Patent Application Serial No. 10/822,939, [ ] filed on April 13, 2004, [herewith] entitled: COMPOSITION COMPRISING INTERCALATED METAL-ION SEQUESTRANTS<sub>s</sub> by Joseph F. Bringley, David L. Patton, Richard W. Wien; (~~docket 87765~~), the disclosures of which are incorporated herein by reference.

Please replace the paragraph beginning on page 11, line 9 with the following rewritten paragraph:

In a preferred embodiment, the derivatized particles comprise derivatized nanoparticles comprising inorganic nanoparticles having an attached metal-ion sequestrant, wherein said inorganic nanoparticles have an average particle size of less than 200 nm and the derivatized nanoparticles have a stability constant greater than  $10^{10}$  with iron (III). It is further preferred that the derivatized nanoparticles have a stability constant greater than  $10^{20}$  with iron (III). The derivatized nanoparticles are preferred because they have very high surface area and may have a very high-affinity for the target metal-ions. It is preferred that the nanoparticles have an average particle size of less than 100 nm. It is further preferred that the nanoparticles have an average size of less than 50 nm, and most preferably less than 20 nm. Preferably greater than 95% by weight of the nanoparticles are less than 200 nm, more preferably less than 100 nm, and most preferably less than 50 nm. This is preferred because as the particle size becomes smaller, the particles scatter visible-light less strongly. Therefore, the derivatized nanoparticles can be applied to clear, transparent surfaces without causing a hazy or a cloudy appearance at the surface. This allows the particles of the present invention to be applied to articles without changing the appearance of the article. It is preferred that the nanoparticles have a very high surface area, since this provides more surface with which to covalently bind the metal-ion sequestrant, thus improving the capacity of the derivatized nanoparticles for binding metal-ions. It is preferred that the nanoparticles have a specific surface area of greater than  $100\text{ m}^2/\text{g}$ , more preferably greater than  $200\text{ m}^2/\text{g}$ , and most preferably greater than  $300\text{ m}^2/\text{g}$ . For applications of the invention in which the concentrations of contaminant or targeted metal-ions in the environment is high, it is preferred that the nanoparticles have a particle size of less than 20 nm and a surface area of greater than  $300\text{ m}^2/\text{g}$ . Derivatized nanoparticles are described at length in U.S. Patent Application Serial No. 10/822,940, [ ] filed on April 13, 2004, herewith entitled: DERIVATIZED NANOPARTICLES COMPRISING METAL-ION SEQUESTRANT, SEQUESTRAINT by Joseph F. Bringley-(~~docket~~ 87428)(Docket 87428); the disclosure of which is hereby incorporated by reference in its entirety.